Anti-pAkt [S473]-152Sm

Catalog: 3152005A

Package size: 50 tests

Storage: Store product at 4 °C. Do not freeze.

Cross-reactivity: Rat, Mouse, Human, Bovine, Canine, Porcine, Hamster, Monkey

Clone: D9E

Isotype: Rabbit IgG

Formulation: Antibody stabilizer with 0.05% sodium azide

Technical Information

Validation: Each lot of conjugated antibody is quality control-tested by CyTOF$^{®}$ analysis of stained cells using the appropriate positive and negative cell staining and/or activation controls.

Recommended usage: The suggested use is 1 µL for up to 3×10^6 live cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.
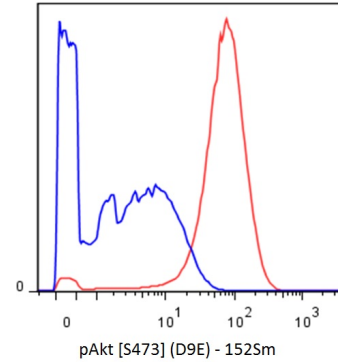
pAkt [S473] (D9E) - 152Sm

Human Jurkat T cells were incubated for 15 minutes in media alone (red) or with wortmannin (blue). Cells were then fixed, permeabilized and stained with 152Sm-anti-pAkt [S473] (D9E).

Description

Akt, also known as PKB or Rac, is an intracellular serine/threonine protein kinase critically involved in several pathways including apoptosis, cell cycle and energy regulation. Akt integrates growth factor signaling through PI3K and is activated in a two-step process involving a priming phosphorylation at Thr308 by PDK1 followed by phosphorylation at Ser473 by mTOR complex 2 (mTORC2). Activated Akt promotes protein translation and cell growth by activating mTOR complex 1 (mTORC1). Akt prevents degradation of cyclin D1, thereby promoting G1 entry. Akt also promotes cell survival by inactivating the pro-apoptotic protein Bad.

References

Bandura, D. R., et al. Mass Cytometry: Technique for Real Time Single Cell Multitarget Immunoassay Based on Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. *Analytical Chemistry* 81 (2009): 6,813–22.

Ornatsky, O. I., et al. Highly Multiparametric Analysis by Mass Cytometry. *Journal of Immunological Methods* 361 (2010): 1–20.

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